



February 27, 2009

BY HAND-DELIVERY

Lynn Fabrizio, Staff Counsel
New Hampshire Public Utilities Commission
21 S. Fruit Street, Suite 10
Concord, NH 03301-2429

**RE: December 2008 Ice Storm Review
 Responses to Staff's First Set of Information
 Requests**

Dear Attorney Fabrizio:

Enclosed on behalf of Unitil Energy Systems, Inc. ("UES"), please find an original and seven copies of the Company's responses to the Commission Staff's first set of data requests in the above-referenced matter. Copies are being delivered as directed.

Please note that responses to Staff 1-29 and 1-30 are not enclosed. They will be forwarded to you under separate cover upon completion. Responses to Staff 1-1 Attachment 1 and Attachment 2 are *Confidential*. A Motion for Protective Treatment of these documents will be filed with the Commission on Monday, March 2, 2009.

Please do not hesitate to contact me if you have any questions concerning these responses.

Sincerely,

/s/ Gary Epler

Gary Epler
Attorney for Unitil Energy Systems, Inc.

Enclosure

cc: Meredith Hatfield, Consumer Advocate (3 copies)
 Jerry Eaton, Senior Counsel, PSNH
 Alexandra Blackmore, Senior Counsel, National Grid
 Mark Dean, Esq.

Gary Epler
Chief Regulatory Counsel
6 Liberty Lane West
Hampton, NH 03842-1720
Phone: 603-773-6440
Fax: 603-773-6640
Email: epler@unitil.com

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-1: Please provide the company's current emergency management plan in an electronic .pdf format.

Response: Please see Staff 1-1 Attachment 1 and Attachment 2 (*Confidential*).

STAFF 1 – 1
ATTACHMENT 1
CONFIDENTIAL

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-2: How often does your company update its emergency management plans?

Response:

The emergency response plans are considered to be “living documents” and are updated as required to ensure that the included information, such as contact names and numbers, are accurate and up-to-date.

STAFF 1 – 1
ATTACHMENT 2
CONFIDENTIAL

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc. – Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-3: Please provide the process that is used to update your emergency management plan.

Response:

Administrative changes, such as updates to contact information or telephone numbers, are performed by local Electric System Managers (who are also Emergency Operation Center coordinators during an event).

Should the change involve a significant process change and/or procedural change, the Electric System Manager would require approval from the Director of Electric Operations.

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-4: Who participates in the development of your emergency management plan? Please include details on the approval process.

Response:

The emergency management plan presents an overview of the restoration process and priorities, defines functional and staffing responsibilities, identifies communications protocols, and describes the many functions required to restore power in the event of a major storm or other emergency event. The emergency management plan is not intended to provide a fixed set of rigid operating procedures, but instead establishes a response and restoration framework designed to be adaptable and flexible depending on the nature and extent of a specific emergency. In essence, the plan acts as a guide to efficiently and effectively ramp up Unitil's normal operating procedures and resources in response to an emergency situation, and does not require an entirely new organizational structure or specialized workforce to be implemented.

Functional managers from each area of the company are responsible for each specific area of the plan. The Director of Electric Systems is responsible for ensuring the plan is effective, and is responsible for approval of the plan. If functional managers implement procedures within their specific areas to support the execution of the plan, then approval for those procedures would occur through the normal approval process established within those functional areas.

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-5: Does your company subscribe to any professional weather forecasting services?

- a. If yes, please provide the name or names of the company or companies.
- b. Please also provide how long your company has subscribed to the service.
- c. Please provide a description of the services provided to your company.

Response:

Yes, Unitil subscribes to a professional weather service.

a. Unitil has contracted with DTN Meteorlogix, 11400 Rupp Drive Minneapolis, MN 55337 (<http://www.dtnmeteorlogix.com/>).

b. Unitil has a long term practice of subscribing to weather services for over 20 years. We recently awarded our 2008/09 service to DTN Meteorlogix and have been receiving their reports and on-line services since October 1st, 2008.

Our 24/7 Systems Dispatch group monitors Meteorlogix's on-line service for alerts. Additionally, we utilize other on-line weather services as a comparison reference. Unitil maintains an active hyperlink on its internal web services viewer to the Weather Underground (<http://www.wunderground.com/>) for its various operating centers. If a weather alert is issued, System Dispatch will distribute a Weather Advisory Email to key personnel as appropriate.

c. Unitil has a contract with DTN Meteorlogix for Meteorological Services (Weather Data) from October 1, 2008 Through September 30, 2009. This service can be summarized as follows:

- Forecasts for four locations
 - * ORH – Regional Airport, Worcester, MA
 - * BED – Hanscom Field, Bedford, MA
 - * PSM – Pease, Portsmouth, NH
 - * PWM – International Jetport, Portland, ME

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

- Emailed weather reports for days 1 and 2; general forecasts for days 3 through 7; actual detailed data for previous day, and monthly detail in spreadsheet format.
- General weather detail for Northern Worcester, MA County; Rockingham & Stratford, NH; Cumberland & Androscoggin, ME Counties.
- MxVision WeatherSentry online graphical and text weather display services (1 license) with 10 day forecast coverage and real-time weather monitoring tools (Current Conditions, Radar, Satellite Etc.)

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-6: If your company does not subscribe to any professional weather forecasting services, please provide a detailed explanation why it does not.

Response:

Unitil subscribes to a professional weather forecasting service. Please see the response to Staff 1-5.

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-7: Please provide all weather data and forecasts your company received and/or used on each of the following dates: December 9, 10, 11, and 12.

Response:

Please see Staff 1-7 Attachment 1.

TUESDAY 09-DEC-08 4:01AM

The winds will continue to die down today as high pressure moves in and brings abundant sunshine. However, temps will struggle and highs are only expected to reach the 20s and low 30s in spots. No changes into tonight but may have to raise some locations 1-3 degrees with some increasing clouds towards Tue morning. Still, lows should reach the upper single digits and teens for most. No changes to tomorrow's highs with southerly flow picking up and rain by Tue night. Should see highs in the upper 30s and 40s with temps rising through the night. Well above normal readings for Wed with rain and wind.

Statement as of 7:27 AM EST on December 10, 2008 Seacoast/Capital

... Wind Advisory in effect until noon EST today...

The National Weather Service in gray has issued a Wind Advisory... which is in effect until noon EST today.

A Wind Advisory means that winds gusts over 45 mph are expected. Winds this strong can make driving difficult... especially for high profile vehicles. Use extra caution.

Statement as of 8:20 AM EST on December 10, 2008 Unitil MA:

... Wind Advisory remains in effect until 1 PM EST this afternoon...

A Wind Advisory remains in effect until 1 PM EST this afternoon.

South to southwest winds of 25 to 35 mph with gusts of 45 to 55 mph are occurring at 8 am this morning. Winds of this magnitude are resulting in some downed tree limbs and isolated to scattered power outages. The winds will diminish this afternoon.

So far between 6 and 8 am... strongest winds were 56 mph at the Blue Hills... 52 mph at Beverly... and 49 mph bostons Logan Airport.

A Wind Advisory is issued when sustained winds are forecast to be 31 to 39 mph or gusts will range between 46 and 57 mph. Winds this strong are capable of Downing small tree limbs and branches... possibly causing isolated power outages. Driving can also be difficult... especially for high profile vehicles.

WEDNESDAY 10-DEC-08 10:33AM

For today, expect mostly cloudy skies with the chance for rain increa sing through this afternoon/evening. Highs will likely occur early, then cool through the day and should top out in the 50s to near 60. A cold front will bring a wintry mix to interior locales tonight, with all rain for areas near

and along the coast. Lows could prove tricky depending how far the cold air can entrench, but lows should range from upper 20s west to lower 40s east. On Thursday, look for very little temperature change from the morning lows. Temperatures will drop off during the day on Friday, while highs look ok.

WEDNESDAY 10-DEC-08 2:02PM

For today, expect mostly cloudy skies with the chance for rain increasing through this afternoon/evening. Highs will likely occur early, then cool through the day and should top out in the 50s to near 60. A cold front will bring a wintry mix to interior locales tonight, with all rain for areas near and along the coast. Lows could prove tricky depending how far the cold air can entrench, but lows should range from upper 20s west to lower 40s east. On Thursday, look for very little temperature change from the morning lows. Temperatures will drop off during the day on Friday, while highs look ok.

Statement as of 3:11 PM EST on December 10, 2008 SEACOAST/CAPITAL

... Winter Storm Watch now in effect from Thursday afternoon through Friday afternoon...

The Winter Storm Watch is now in effect from Thursday afternoon through Friday afternoon.

At this time... the potential exists for significant icing... due to freezing rain and sleet... from the foothills to interior coastal counties... and heavy snowfall of 6 inches or more in the mountains and foothills... with some sleet and freezing rain on the coast Thursday afternoon and evening before a change to rain.

However... the exact track of this coastal storm remains uncertain... and will ultimately determine where the most significant icing and snowfall will occur. It is likely that travel conditions will become difficult by late Thursday afternoon or early evening. Stay tuned to NOAA Weather Radio or your local media for the later updates on this situation.

A Winter Storm Watch means there is a potential for significant snow... sleet... or ice accumulations that may impact travel. Continue to monitor the latest forecasts.

Statement as of 4:19 PM EST on December 10, 2008 UNITIL MA

... Ice Storm Warning in effect from 4 am Thursday to 7 am EST Friday...

The National Weather Service in Taunton has issued an Ice Storm Warning... which is in effect from 4 am Thursday to 7 am EST Friday. The Winter Storm Watch is no longer in effect.

This warning covers central and western Massachusetts.

Rain may quit for a while tonight but will develop early Thursday as

sleet... freezing rain or freezing drizzle.

The mixed freezing precipitation will intensify at times during the daylight hours Thursday... possibly becoming heavy Thursday night.

Elevations... above 500 feet will potentially suffer from considerable power outages later Thursday and Thursday night as ice accumulates between one half and one inch... with dangerously higher amounts possible.

There is still a chance sleet could lessen the glaze accumulation.

More details will be added as this evolving and potentially dangerous ice storm evolves.

Travel delays are expected Thursday and Thursday night... as travel becomes extremely difficult at times.

Ice accretion should result in downed tree limbs and power lines. If your power GOES out... do not use candles. Have batteries and flashlights on hand. If you must travel... keep an extra flashlight... food... and water in your vehicle in case of an emergency.

WEDNESDAY 10-DEC-08 10:01PM

For today, expect mostly cloudy skies with the chance for rain increasing through this afternoon/evening. Highs will likely occur early, then cool through the day and should top out in the 50s to near 60. A cold front will bring a wintry mix to interior locales tonight, with all rain for areas near and along the coast. Lows could prove tricky depending how far the cold air can entrench, but lows should range from upper 20s west to lower 40s east. On Thursday, look for very little temperature change from the morning lows. Temperatures will drop off during the day on Friday, while highs look ok.

THURSDAY 11-DEC-08 4:01AM

For today, expect mostly cloudy skies with the chance for rain increasing through this afternoon/evening. Highs will likely occur early, then cool through the day and should top out in the 50s to near 60. A cold front will bring a wintry mix to interior locales tonight, with all rain for areas near and along the coast. Lows could prove tricky depending how far the cold air can entrench, but lows should range from upper 20s west to lower 40s east. On Thursday, look for very little temperature change from the morning lows. Temperatures will drop off during the day on Friday, while highs look ok.

Statement as of 6:04 AM EST on December 11, 2008 **SEACOAST/CAPITAL**

... Winter Storm Warning in effect from noon today to 1 PM EST Friday...

The National Weather Service in gray has issued a Winter Storm Warning for freezing rain with some snow and sleet... which is in effect from noon today to 1 PM EST Friday. The Winter Storm Watch is no longer in effect.

Heavy freezing rain accretion will occur with between a half and one inch accumulation. Locally... 1 to 3 inches of snow and sleet will also accumulate.

Significant amounts of freezing rain and snow are forecast that will make travel dangerous. Only travel in an emergency. If you must travel... keep an extra flashlight... food... and water in your vehicle in case of an emergency.

Statement as of 6:37 AM EST on December 11, 2008 **UNITIL MA**

... Ice Storm Warning remains in effect until 7 am EST Friday...

An Ice Storm Warning remains in effect until 7 am EST Friday.

This warning covers central and western Massachusetts.

Intermittent freezing rain will continue through today and tonight. Temperatures are generally at or below freezing this morning and are not expected to rise more than 1 degree from 6 am readings. In some places the temperature may fall a degree or 2 today... especially elevations.

A glaze of one - half to one inch of ice is forecast with the most dangerous icing on the northeast Facing Hills.

There are already reports of significant icing in northwest Massachusetts.

Temperatures may rise a couple of degrees later tonight to ease the glaze accumulations... but probably not before pockets of damaging ice accumulations occur.

Untreated roads and walkways will become slippery and potentially dangerous. If traveling you should allow plenty of extra time to reach your destination.

Ice accretion should result in downed tree limbs and power lines. If your power GOES out... do not use candles. Have batteries and flashlights on hand. If you must travel... keep an extra flashlight... food... and water in your vehicle in case of an emergency.

THURSDAY 11-DEC-08 10:33AM

Significant ice storm for northwest CT and central/western MASS in response to large winter storm moving up the East coast. Rain in all other areas, heavy at times. Maxes OK as most areas hold steady. Tonight, lows fall into the upper 20s north and west to low 40s south and east. Gusty winds 30-40 mph develop over South Shore and Cape. Early morning highs are in the 30s/40s before falling all day. Skies begin to clear overnight leading to cold night. Lows in teens to low 20s likely. High and dry Saturday but cold airmass remains locked in across region.

THURSDAY 11-DEC-08 2:01PM

Significant ice storm for northwest CT and central/western MASS in response to large winter storm moving up the East coast. Rain in all other areas, heavy at times. Maxes OK as most areas hold steady. Tonight, lows fall into the upper 20s north and west to low 40s south and east. Gusty winds 30-40 mph develop over South Shore and Cape. Early morning highs are in the 30s/40s before falling all day. Skies begin to clear overnight leading to cold night. Lows in teens to low 20s likely. High and dry Saturday but cold airmass remains locked in across region.

Statement as of 3:39 PM EST on December 11, 2008 SEACOAST/CAPITAL

... Winter Weather Advisory remains in effect until 1 PM EST Friday...

A Winter Weather Advisory remains in effect until 1 PM EST Friday.

Expect sleet and freezing rain to change to rain overnight along the immediate coast. Pockets of freezing rain may persist away from the coast into Friday morning. One quarter to one half inch of ice accretion is expected.

Significant amounts of freezing rain are forecast that will make travel dangerous. Only travel in an emergency. If you must travel... keep an extra flashlight... food... and water in your vehicle in case of an emergency.

Statement as of 4:20 PM EST on December 11, 2008 UNITIL MA

... Ice Storm Warning remains in effect until 7 am EST Friday...

An Ice Storm Warning remains in effect until 7 am EST Friday.

This warning covers central and western Massachusetts.

Freezing rain will fall heavily at times... with temperatures rising to near freezing toward dawn tomorrow when ice accumulation may ease.

This is especially an elevation ice storm with glaze accumulations ranging from one half to 1 inch overnight. The heaviest amounts of glaze are expected across the northern two thirds of Worcester County... extreme northwest Middlesex County near Ashby and the east slopes of the Berkshires in western Hampden... Hampshire and Franklin counties.

Long duration power outages may develop tonight as there already have been several reports of at least one quarter inch glaze in central and western Massachusetts higher terrain.

The valley floor... especially near Interstate 91 around Northampton may not see much icing tonight.

Untreated roads and walkways are already slippery. If traveling... you should allow plenty of extra time to reach your destination.

Ice accretion should result in downed tree limbs and power lines. If your power GOES out... do not use candles. Have batteries and flashlights on hand. If you must travel... keep an extra flashlight... food... and water in your vehicle in case of an emergency.

THURSDAY 11-DEC-08 10:01PM

Rain heavy tonight and into Fri AM where 2-3" of rainfall is expected with this storm. Meanwhile the ice storm continues for central/west MA and south VT/NH through tonight as well. Some areas could see another 1" of solid ice across interior New England with this system. Some sleet/snow mix possible west/north Fri AM/early PM as this system wraps up. Drying conditions likely by the early/mid afternoon Fri. Winds gust Fri PM around 25-35 mph which could cause some further power issues. Lows tonight steady around 30 to the low 40s. Mid 30s/mid 40s for Fri, warmer along the coast.

FRIDAY 12-DEC-08 4:01AM

Rain heavy tonight and into Fri AM where 2-3" of rainfall is expected with this storm. Meanwhile the ice storm continues for central/west MA and south VT/NH through tonight as well. Some areas could see another 1" of solid ice across interior New England with this system. Some sleet/snow mix possible west/north Fri AM/early PM as this system wraps up. Drying conditions likely by the early/mid afternoon Fri. Winds gust Fri PM around 25-35 mph which could cause some further power issues. Lows tonight steady around 30 to the low 40s. Mid 30s/mid 40s for Fri, warmer along the coast.

FRIDAY 12-DEC-08 10:33AM

Tricky forecast with maxes into this afternoon. Warm front lifting through parts of the region allowed temps to reach lower 60s in eastern MA, RI earlier today. Likely to see falling temps the remainder of the day. Northwest winds gust to 25 mph most areas this afternoon. Winds lighten a bit overnight as clouds clear due to high pressure settling into the area. Lows in the teens and 20s. Cooler guidance is on track Saturday despite more sun. Another clear/cool night is expected Sat night with light winds. Slight moderation of temps with light southwest winds Sun means milder temps.

FRIDAY 12-DEC-08 10:01PM

Clouds overall break up in most areas tonight and winds will slacken somewhat through the night as well, with gusts mainly below 25 mph after midnight. Lows fall in the teens most spots, with east/south areas in the upper teens-mid 20s. Mostly sunny to partly cloudy and chilly across the region Sat with much lighter winds expected. Highs reaching in the 20s to mid 30s, warmest south/east. Very cold under high pressure for Sat night with lows in the single digits-mid teens, with coasts in the mid teens-low 20s. A bit warmer Sun, very nice by Mon, and colder again by Tues/Weds.

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-8: Please describe the process used to alert personnel within your company about the possibility of the December 2008 ice storm.

Response:

The Unitil Systems Dispatchers review the weather hourly. When a storm front is predicted, a Weather advisory e-mail is sent to key personnel within Unitil. Examples of these weather alert emails are included as Attachment 1 of response to Staff 1-7.

As a result of the weather advisory e-mails from the System Dispatchers, the Director of Electric Operations scheduled several conference calls with the Electric System Managers and other operating personnel to discuss the 2008 ice storm. The purpose of the call was to assess the current weather forecast and determine the potential impact to Unitil's electric facilities. This group also discussed pre-storm readiness activities including notifying all operations staff and line personnel of the potential for outages. The Electric Systems Managers also notified the on-system line contractors that we are in storm readiness mode. E-mail communications are then sent to key management personnel informing them that operations personnel are in readiness mode, and summarizing the pending weather forecast.

Once a NWS Storm Warning has been issued, the Company will prepare and send out a pre-storm Public Service Advisory which goes to an extended list of employees and management. The PSAs are also sent to the media and a list of public officials and it is posted on the Company website. The pre-storm PSA for the December ice storm was issued at 1:15PM on December 11.

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-9: Please describe in detail the process used to determine the resource needs of your company for a major restoration event.

Response:

Based upon the weather forecast as describe in Staff 1-7, the Director of Electric Operations, along with the affected Electric System Managers, will estimate the potential impact to the energy delivery system. This estimate is based upon prior experience with similar weather patterns. This information is then translated into anticipated system troubles, including which operating centers will be involved (i.e. geographically) and to what extent damage will cause service interruptions. The company will assess current staffing levels, including both internal and external resources that may be currently assigned to the Unitil system.

**NHPUC December 2008 Ice Storm Review
Unitil Energy Systems, Inc.- Set 1**

**Witness: Raymond A. Letourneau, Jr.
February 27, 2009**

Staff 1-10: Please describe the activation process of command centers, work centers, and staging sites. Please indicate the timeframe of the activation in relation to anticipated impact of the December 2008 storm.

Response:

Unitil activates an Emergency Operations Center ("EOC") at a distribution operating center anytime 3 or more crews are engaged in restoration activities. Both UES Capital and UES Seacoast EOCs were performing pre-storm planning activities on December 10, 2008.

Unitil does not utilize a command center. The Director of Electric Operations engages various members of Unitil management to provide communication and enlist assistance for storm restoration. Communications on the storm event and anticipated restoration activities are maintained internally with key management personnel before and during the event. In addition, meetings and/or conference calls with key management were held several times a day.

Staging areas are utilized when it becomes logistically difficult to continue to utilize the operating center as the primary coordination point for restoration activities. Once shifts are established, the majority of the crews are reporting in before daylight, stocking up their trucks, and obtaining daily assignments. As the number of crews participating in restoration activities increase, the effectiveness of the operation center as the single coordination point may diminish. It is at this time that an alternate staging area is established. For this storm, UES did not find it necessary to activate a fully staffed, secondary staging area, although local safety complexes were utilized for crew reporting and material staging.